



ONKY -00611

Artistry in Sound

ONKYO®

K-200R

Stereo Cassette Tape Deck
Stereo-Cassetten-Tonbandgerät
Magnétophone à cassettes stéréo
Grabadora de Casetes Estereofónica
Stereo Cassettedeck
Stereokassettdäck
Doppia piastra a cassette stereo

| | |
|-------------------------------------|-----------|
| Instruction Manual | 1 |
| Bedienungsanleitung | 13 |
| Manuel d'instructions..... | 25 |
| Manual de instrucciones..... | 37 |
| Gebruiksaanwijzing..... | 49 |
| Bruksanvisning..... | 61 |
| Istruzioni per l'uso | 73 |

611

- **C**ongratulations on your purchase of the ONKYO K-200R Cassette Tape Deck.
- Please read this manual thoroughly before making connections and turning power on.
- Following the instructions in this manual will enable you to obtain optimum performance and listening enjoyment from your new K-200R.
- Please retain this manual for future reference.

Contents

| | |
|---------------------------------------|----|
| FEATURES | 1 |
| IMPORTANT SAFEGUARDS..... | 1 |
| PRECAUTIONS..... | 2 |
| SYSTEM CONNECTIONS..... | 2 |
| FRONT AND REAR PANEL FACILITIES | 3 |
| COMMON MODES OF OPERATION | 4 |
| SPECIAL MODES OF OPERATION | 6 |
| REVERSE MODE SELECTOR | 9 |
| HANDLING CASSETTE TAPES | 10 |
| OWNER MAINTENANCE | 10 |
| TROUBLESHOOTING GUIDE | 11 |
| SPECIFICATIONS..... | 12 |

Features

- **Elegant New Design Features Sleek, Unadorned Styling and Titanium Steel Colored Finish.**
- **Computer Controlled Full Logic Tape Transport**
This feature lets you switch between the three transport modes without stopping in between. The computer controlled key action is precise and responsive. A DC servo motor ensures smooth tape transport in all modes. Its low power demands insure reduced hum and induction noise.
- **Quick Auto Reverse**
Quick Auto Reverse lets you record continuously on both sides of a tape. A sensor detects the leader tape at the end of the reel and the tape immediately switches direction. Since the gap between tape sides is hardly noticeable, you can use a tape over its entire length, not as two separate sides—great for long pieces and live recording.
- **Dolby* HX Pro**
The K-200R features the Dolby HX Pro headroom expansion system. It monitors the audio signal and lowers the bias current to compensate for the “self biasing” which occurs during high frequency signal peaks. Since it only operates during recording, you can play back tapes recorded using HX Pro (and enjoy improved sound) even on decks not equipped with the system. HX Pro works with both Dolby B and C NR.
- **Automatic Recording Level Adjustment**
Turn the AUTO LEVEL function on and the K-200R will adjust the recording level automatically. This function can be used together with synchro recording when copying from CD to cassette.
- **Block Repeat**
- **Large, Easy-to-Read LCD (Liquid Crystal Display) with Real Time Counter**
- **SEARCH Function Automatically Locates the Beginning of the Next Selection in the Forward Direction**
- **Rec Mute Function Automatically Inserts a Space Between Selections**
- **Fully Automatic Tape Selector**

Important safeguards

“WARNING”

“TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.”

“CAUTION”

“TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.”

- This apparatus complies with requirements of EEC directive 82/499/EEC.

Precautions

1. Warranty card

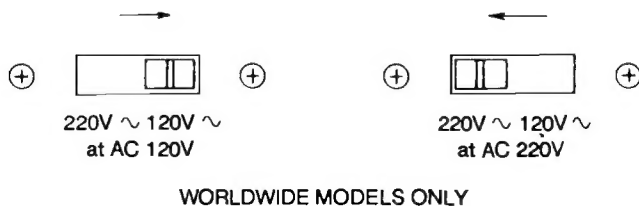
The serial number is written on the rear panel of this unit. Copy the serial number and model number onto your warranty card and keep it in a safe place.

2. Power

WARNING

BEFORE TURNING ON POWER FOR THE FIRST TIME, READ THE FOLLOWING SECTION CAREFULLY.

- Some models are designed for use only with the power supply voltage of the region where they are sold.
 - U.K. and Australian models: AC 240V, 50Hz
 - European models (except U.K.): AC 220V, 50Hz
 - Worldwide models: AC 120 and 220V switchable, 50/60Hz
- Voltage selector (rear panel)**
Worldwide models are equipped with a voltage selector to conform with local power supplies. Be sure to set this switch to match the power supply in your area before turning the power switch on. Voltage is changed by sliding the groove in the switch with a screwdriver to the right or left. Confirm that the switch has been moved all the way to the right or left before turning the power switch on. Models without a voltage selector can only be used in areas where the power supply voltage is the same as that of the unit.



3. Deck location

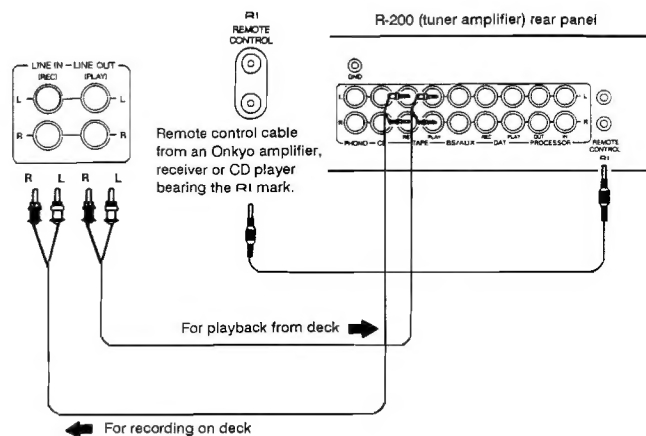
- Do not use or leave in direct sunlight or in other places subject to high temperature and humidity. The unit should also not be left in potentially hot places such as near heating appliances. Excessive heat and moisture can lead to internal damage and serious malfunctions (this also applies to cassette tapes). The recommended ambient temperature range is 5°C to 35°C.
- Avoid damp and dusty places and locations prone to vibrations.
- Be extremely careful with the recording/playback heads. Clean and demagnetize them regularly, but under no circumstances should magnets or other metals be used anywhere near the heads.
- This unit is extremely sensitive to magnetic fields, so do not use near large speakers or other devices which generate magnetic fields.
- Hum may even be induced by magnetic flux leakage from the power transformer in certain amplifiers. Therefore, this unit should also be kept clear of the amplifier.
- Do not remove the cabinet case. If any of the internal parts are handled, there is a considerable danger of electric shock.

4. Cassettes to avoid:

- Cassettes with poorly formed cases that rattle during rewind and fast forward.
- Low cost cassettes with no guide roller or pressure pad spring should never be used for stereo.
- C-120 cassettes—because the tape and the coating are extremely thin, distortion levels are high and the auto reverse function may not operate properly. Also, even a slight stretching of the tape will make it susceptible to being caught up in the pinch roller and capstan.
- Endless tapes, if used for a long period of time, can over-heat.
- Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang and Olufsen. "Dolby," the double-D symbol and Dolby HX Pro are trademarks of Dolby Laboratories Licensing Corporation.
- Recording of copyrighted material for other than personal use is illegal without permission of the copyright holder.

System connections

All connections should be made with the power OFF. Hook up to the amplifier:



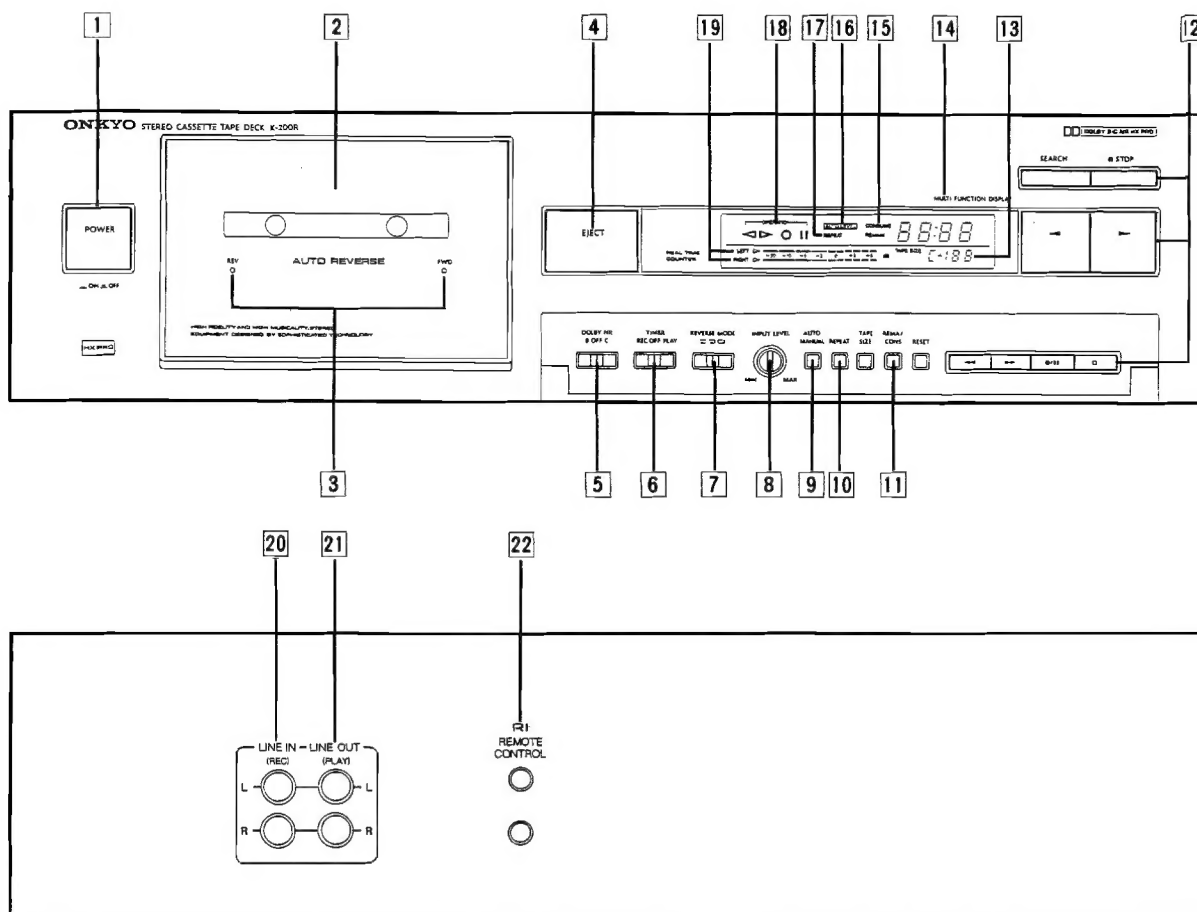
AC Outlet (UNSWITCHED) (Australian model only)

An AC outlet is provided on the rear panel which is not switched on and off by the power switch on the front panel. Capacity is 100 watts. Plug the K-200R into the AC outlet on the rear panel of the R-200 tuner amplifier or C-200 CD player.

Notes:

- Do not attempt to connect the R1 remote control jack to any equipment other than an Onkyo component bearing the R1 mark. Doing so could cause the unit to malfunction.
- This unit employs a microcomputer which may not operate properly if exposed to noise or interference from other electronic components. Should the unit fail to operate properly, briefly switch the power off and then on again to correct the problem.

Front and rear panel facilities



- 1 Power Switch (POWER ON/OFF)
- 2 Cassette Holder
- 3 Direction Indicators (REV/FWD)
- 4 Eject Button (EJECT)
- 5 Dolby NR Switch (DOLBY NR B/OFF/C)
- 6 Timer Switch (TIMER REC/OFF/PLAY)
- 7 Reverse Mode Selector Switch ()
- 8 Input Level Control Knob (INPUT LEVEL)
- 9 AUTO/MANUAL Button
 - AUTO : Recording level is set automatically (AUTO LEVEL indicator on)
 - MANUAL : Recording level is adjusted using the Input Level Control knob (AUTO LEVEL indicator off)
- 10 Repeat Button (REPEAT)
- 11 Real Time Counter Operation Buttons
 - Tape Size Selector Button (TAPE SIZE)
 - Real Time Counter Mode Button (REMA/CONS)
 - Elapsed Time Reset Button (RESET)
- 12 Tape Operation Buttons
 - SEARCH : Search Button
 - RI ■ STOP : Stop Button
 - RI ◀ : Reverse Play Button
 - RI ▶ : Forward Play Button

- : Auto Space Button (See page 7.)
- RI ●/II : Rec/Pause Button
- RI ▶▶ : Fast Forward Button
- RI ◀◀ : Rewind Button
- 13 Tape Size Indicator (C90/C120/C46/C60)
- 14 Real Time Counter
- 15 Counter Mode Indicators (CONSUME/REMAIN)
- 16 AUTO LEVEL Indicator
- 17 Repeat Indicator
- 18 Tape Operation Indicators
 - ◀ ▶ : Play Indicators
 - : Recording Indicator
 - II : Pause Indicator
- 19 Peak Level Indicators (LEFT CH/RIGHT CH)
- 20 Line In Jacks (LINE IN (REC))
- 21 Line Out Jacks (LINE OUT (PLAY))
- 22 Remote Control Jack (RI REMOTE CONTROL) (See page 2.)

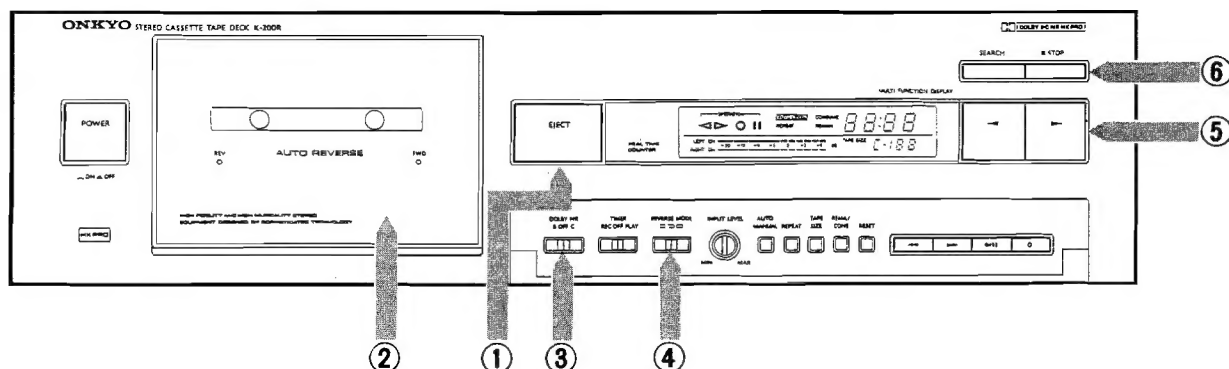
Note:

Controls marked with the RI logo can be operated using the TAPE operation buttons of the RC-153S remote control unit included with the R-200 tuner amplifier.

Common modes of operation

Check once again that all connections have been completed exactly as indicated in the connections diagram and then turn the power on. After turning power on, no operations are possible until the **||** Pause indicator has stopped flashing on and off.

Tape Playback



- ① Depress the Eject button to open the cassette holder.
- ② Insert a cassette with the exposed tape facing down and the side to be played facing outward. Close the cassette holder.
- ③ Set the Dolby NR switch to the proper position for the tape about to be used.
 - Tapes recorded using Dolby B or C NR must be played back with the Dolby NR switch in the B or C position, as appropriate.
- ④ Set the Reverse Mode Selector switch to the desired tape transport mode. See the "Reverse mode selector" section.
- ⑤ Press the **▶** or **◀** Play button depending on which side of the cassette you wish to listen to. The R-200 INPUT SELECTOR will display "TAPE." (See the

"Direct function feature" section of the R-200 instruction manual for details).

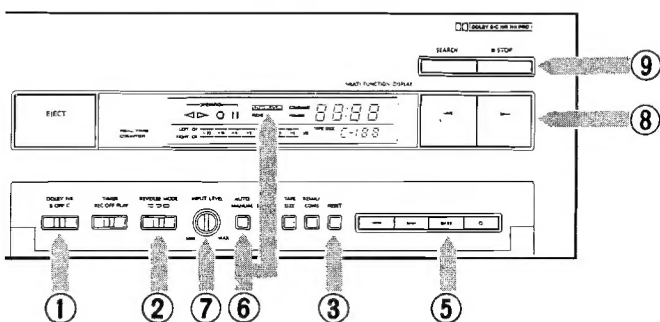
- ⑥ Press the **■** STOP button to stop playback. After tape transport has stopped and the Peak Level indicators have gone out, press the EJECT button to open the cassette holder and remove the cassette.

Fast Forward and Rewind

Press the **▶▶** button to wind the tape rapidly forward and the **◀◀** button to wind it rapidly backward. The tape will stop when the **■** STOP button is pressed or when the end of the tape is reached (on account of the auto-stop mechanism).

Recording

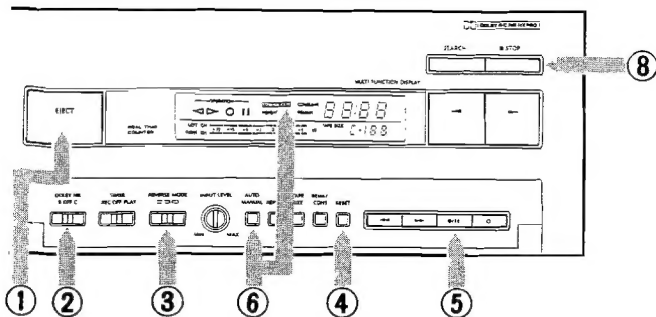
Recording from Sources other than the CD Player



- Insert a cassette with the side to be recorded facing out. Before inserting the cassette, confirm that the erasure prevention tabs are intact (see page 10). If one or both of the tabs is broken off, recording on the side with the missing tab will not be possible.
 - Operating the unit near a television set can cause hum during recording or playback. Should this happen, either turn off the television set or move it away from the cassette deck.
- ① Set the Dolby NR switch to the B or C position if you want to make a Dolby NR encoded recording.
 - ② Set the Reverse Mode Selector switch to the desired (**||** or **◁▷**) tape transport mode. See the "Reverse mode selector" section for details.
 - ③ Press the elapsed time counter RESET button to return the tape counter to [0:00] so you can index the recording for future reference.

- ④ Press the R-200 INPUT SELECTOR button for the source you wish to record.
- ⑤ Press the **●/||** button. The tape will not move, but the Peak Level indicators will show the level of the signal being received through the LINE IN jacks.
- ⑥ Use the AUTO/MANUAL button to select either auto or manual mode. When the auto mode is selected (**AUTO LEVEL** indicator on) the optimum recording level is set automatically.
- ⑦ If the manual mode is selected (**AUTO LEVEL** indicator off), watch the Peak Level indicators and adjust the Input Level Control knob to the proper position.
- ⑧ Confirm again that an input signal is being received (the Peak Level indicators should light) and then press the **▶** or **◀** Play button to begin recording.
- ⑨ The auto-stop mechanism will stop tape transport automatically when the end of the tape is reached (depending on the tape transport mode). To stop recording before the end of the tape, press the **■** STOP button. To briefly interrupt recording, press the **●/||** button.

CD Player to Tape Synchro Recording



- Synchro recording using the C-200 CD player is possible if the K-200R is used with the other components in the same series (R-200, C-200). Once the system is properly set up, pressing the CD player's PLAY, PAUSE or STOP button causes the synchro recording function to simultaneously switch the K-200R to the start, auto space or record/standby mode, as appropriate.
- The direction of tape travel should be set before using this function. To change directions, press either the ► or ◀ Play button followed immediately by the ■ STOP button.

Synchro Recording with Automatic Recording Level Adjustment

- 1 Insert a cassette with the side to be recorded facing out. Before inserting the cassette, confirm that the erasure prevention tabs are intact. If one or both of the tabs is broken off, recording on the side with the missing tab will not be possible.
- 2 Set the Dolby NR switch to the B or C position if you want to make a Dolby NR encoded recording.
- 3 Set the Reverse Mode Selector switch to the desired (◀) or (▶) tape transport mode. See the "Reverse mode selector" section for details.

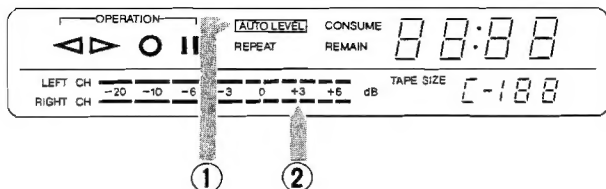
- 4 Press the elapsed time counter RESET button to return the tape counter to [0:00] so you can index the recording for future reference.
- 5 Press the ●/|| button.
- 6 Press the AUTO/MANUAL button to turn on the **AUTO LEVEL** indicator. The mode is initially "auto" when power is first turned on.
- 7 Press the C-200 CD player PLAY button. The synchro recording function causes recording to commence automatically. The optimum recording level is set automatically.
- 8 To stop recording before the end of the tape, press the ■ STOP button. To briefly interrupt recording, press the ●/|| button.

Synchro Recording with Manual Recording Level Adjustment

After completing steps 1 – 4 above:

- 5 Press the C-200 CD player PLAY button.
 - 6 Press the ●/|| button. The tape will not move, but the Peak Level indicators will show the level of the signal being received through the LINE IN jacks.
 - 7 Press the AUTO/MANUAL button to turn off the **AUTO LEVEL** indicator. Watch the Peak Level indicators and adjust the Input Level Control knob to the proper position. (The input levels for the left and right channels are adjusted automatically.)
 - 8 Press the C-200 STOP button, then press PLAY again. The synchro recording function causes recording to commence automatically.
 - 9 To stop recording before the end of the tape, press the ■ STOP button. To briefly interrupt recording, press the ●/|| button.
- Changing the R-200 input selector setting while recording causes the K-200R to switch to the record/standby mode.
 - Pressing the AUTO/MANUAL button has no effect during recording.

Setting the Proper Recording Level



The recording level has an important effect on the sound quality a tape will have when it is played back. A recording level that is too high will cause distortion while one which is too low will lower the signal-to-noise ratio resulting in a tape with excessive "hiss noise."

- 1 Automatic Recording Level Adjustment (**AUTO LEVEL** indicator on)
The optimum recording level is set automatically. When recording to cassette from CD, we recommend using the synchro recording function described above.
- 2 Manual Recording Level Adjustment (**AUTO LEVEL** indicator off)
The recording level must be adjusted manually using the INPUT LEVEL control knob. Set the level so that the "0" through "+3" indicators light occasionally. The top six segments of the peak level indicators (0 – +6) feature a peak hold function.

The Dolby Noise Reduction System

Dolby B NR is the system used in most cassette tape decks to reduce the background noise that is inherent in all cassette tapes. This deck also features Dolby C NR, an even more effective noise reduction system, developed by Dolby Laboratories in response to the demand for even better sound from cassette tapes.

The Dolby HX Pro System

Tape sensitivity is constantly changing as recordings are made due to the biasing effect of high frequency audio signals. Dolby HX Pro is a system that compensates for these undesirable fluctuations during recording. It does not operate during playback, so cassettes recorded with Dolby HX Pro can be played back on decks not equipped with the system.

Note:

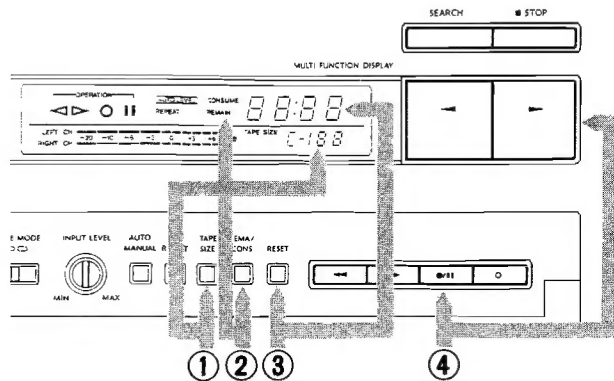
Dolby HX Pro operates independently of Dolby B and C NR and only during recording.

Special modes of operation

Real Time Counter

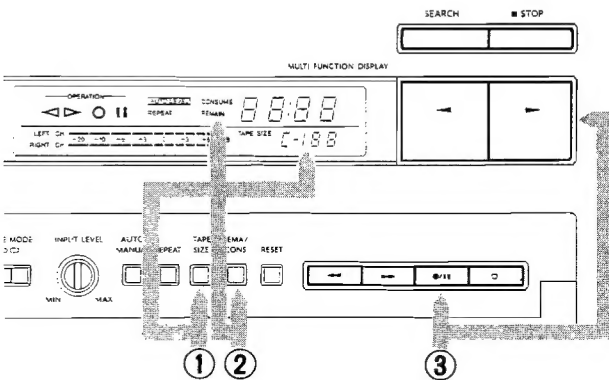
The real time counter can be used in two ways:

1. Elapsed Time Indication (CONSUME)



- ① After inserting a cassette, press the TAPE SIZE selector button. Each press advances the Tape Size indicator from C90 to C120, C46, C60 and then back to C90. Set the size of the cassette to be used before starting playback or recording.
 - ② Press the REMA/CONS button to switch the real time counter to the "CONSUME" (elapsed) time mode.
 - ③ To return the counter to [0:00], press the RESET button.
 - ④ When tape transport begins in the record or play mode, the counter will begin counting the elapsed time. (If you turn the cassette over without resetting the counter, the total time including the first side will be displayed.) The two digits on the left side display minutes and the two digits on the right display seconds.
- The counter reads [0:00] "CONSUME" and the Tape Size indicator reads "C90" when the power is first turned on.

2. Remaining Time Indication (REMAIN)



The real time counter can also be used to show the amount of time remaining on a cassette as it is being recorded or played back.

- ① Set the proper tape length using the TAPE SIZE selector button.
 - ② Press the REMA/CONS button to switch the real time counter to the "REMAIN" (remaining) time mode. The counter will then read [— — —].
 - ③ Begin playback or recording. The real time counter will first read [CALC] for a few seconds and then show the time remaining on that side of the cassette.
 - ④ If the remaining time counter passes "0:00," "[0:00]" will flash on an off on the display.
- If you accidentally set the wrong tape length, press the appropriate TAPE SIZE selector button again to set the correct length (without stopping playback or recording) to obtain the correct remaining time reading.

3. To Obtain the Most Accurate Time Indications Possible:

The real time counter is not a clock, so there may be slight differences between the tape transport time as shown by the counter and the actual time that has elapsed. Small differences in tape lengths between different manufacturers can also cause slight errors. To obtain a more precise reading of remaining time near the end of a cassette, repeat the remaining time calculation procedure. If you insert a cassette of a different length, use the TAPE SIZE selector button to set the new length.

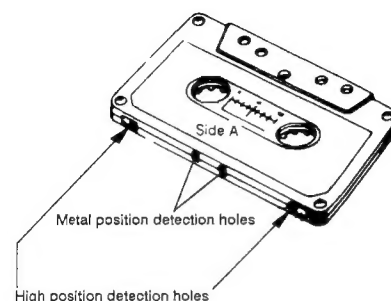
- The remaining time is automatically recalculated when the remaining time counter reaches [6:00]. The display changes briefly to [CALC], then the new (more accurate) remaining time is displayed.

Notes:

- 1) If the wrong tape size has been selected, the remaining time reading will differ significantly from the actual time remaining on the cassette.
- 2) The correct elapsed time is maintained even when the deck is in the remaining time mode.
- 3) The RESET button is used to reset the elapsed time reading.
- 4) When using a tape size other than those included in the Tape Size indicator settings, set the Tape Size indicator to the size closest to that of the cassette being used. In such cases there will be a certain discrepancy between the actual elapsed and remaining times and the values displayed. Slight differences in the time displayed can also be caused by variations in the internal construction of different cassettes.

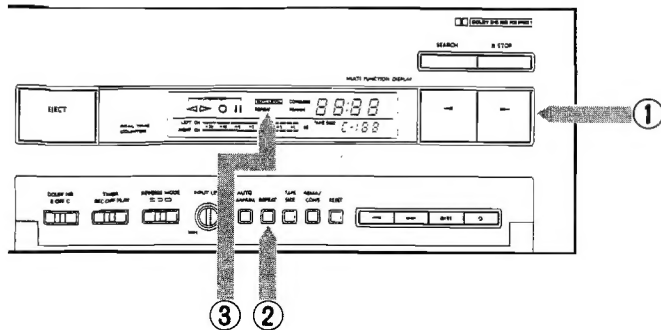
Automatic Tape Selection System

This deck automatically detects the type of cassette in the cassette holder and sets the bias and equalization to the correct settings. Tape selection is performed by detecting the presence or absence of identification pits on the back of the cassette shell. Cassettes manufactured before this identification system was adopted and bargain cassettes that do not incorporate these pits can not be used with this deck.



Using the Repeat Function (Block Repeat)

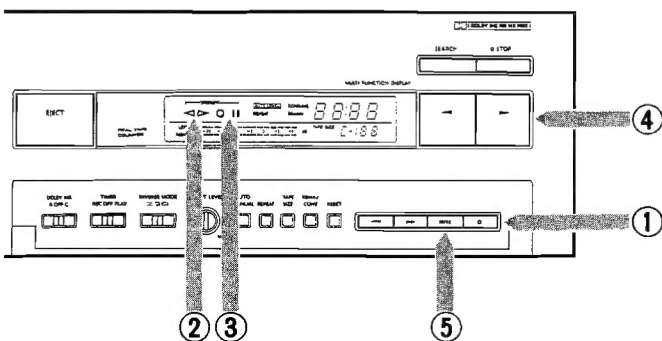
Use this function to repeat a song or a specific section up to five times.



- ① Press the ► (or ◀) Play button to begin playback.
 - ② Press the REPEAT button when the tape reaches the beginning of the block you wish to repeat.
 - ③ The REPEAT indicator flashes on and off. This marks the beginning of the block to be repeated.
 - ④ Press the REPEAT button once again when the end of the block to be repeated is reached.
 - ⑤ The repeat indicator stays on. The portion of the tape between the point where the REPEAT button was pressed first and the point where it was pressed a second time is played five times in succession. After the fifth time, tape transport halts at the point at which the REPEAT button was pressed the second time.
- Note, however, that if the end of the tape is encountered before you press the REPEAT button the second time, the end of the tape becomes the endpoint of the block to be repeated.
 - Pressing the REPEAT button a third time or pressing any other operation button, however, cancels the block repeat function and initiates the new function.

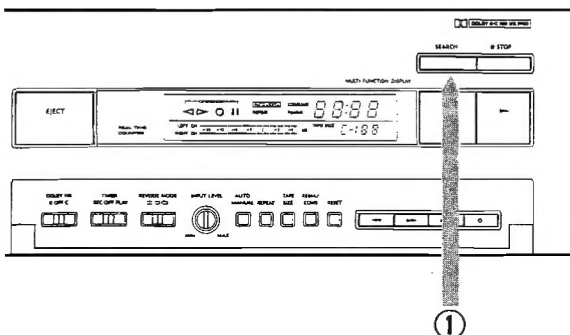
Using the Auto Space Button

This button is useful not only for making recordings from radio broadcasts but also to eliminate the noise of the stylus making contact with a record and the noise between selections on a record.



- ① Press the ◯ (Auto Space) button at any point during a recording where you want to enter a blank section about five seconds long.
 - ② The ▷ (Forward Play) or ◀ (Reverse Play) indicator flashes on and off.
 - ③ After the blank section has been inserted, tape transport stops automatically and the deck returns to the rec/pause standby mode.
 - The ◯ Recording and ■■ indicators turn on.
 - ④ To continue recording, press the Play button corresponding to whichever Direction indicator is on.
 - ⑤ To insert a blank section of tape less than five seconds long, press the ◯/■ button to return to the rec/pause standby mode or press the appropriate Play button before the five second period has elapsed.
 - ⑥ To insert a blank section of tape more than five seconds long, hold the ◯ (Auto Space) button down for as long as you want the blank section to be. The deck will return to the rec/pause standby mode immediately when the button is released.
- The Auto Space button works in both the record and record/pause modes.
 - The Auto Space button is also very convenient for making silent sections of sufficient length for the proper operation of automatic sensing systems such as Music Search.

Music Search Function



- ① Press this button to skip ahead to the next selection on the tape and commence play.
- Then search function does not operate while recording or in the rec/pause standby mode.
- Search operates by detecting the blank sections between selections. If the space between two selections is not long enough, Search will wind the tape to the next blank space of sufficient length. In order to ensure that the blank sections between selections on your cassettes are of the correct length, use the Auto Space button to insert these spaces when making recordings.

Timer Recording and Playback

If the K-200R is used together with the R-200 tuner amplifier, you can record FM broadcasts at preset times or use the system as an alarm clock.

1. Timer Recording

TIMER
REC OFF PLAY



- 1) Turn power on to the K-200R and R-200 and tune in the station you wish to record. (Refer to the R-200 instruction manual for details.)

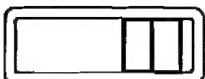
- 2) Prepare the cassette to be used for recording as described in the "Recording from Sources other than the CD Player" section on page 4. If you turn the "Auto" recording level adjustment function on, the optimum recording level will be set automatically.
- 3) With the K-200R and R-200 power switches still on, set the tuner amplifier timer to turn power on at the time of your choice. (Refer to the R-200 instruction manual for details.)
- 4) Set the Timer Switch to the REC position.

Notes:

- 1) If no output from the speakers is required during the actual recording, turn the volume down all the way.
- 2) Be sure the C-200 (CD player) timer switch is in the OFF position.
- 3) The Timer Switch should be left in the OFF position when the timer function is not required.

2. Timer Playback

TIMER
REC OFF PLAY



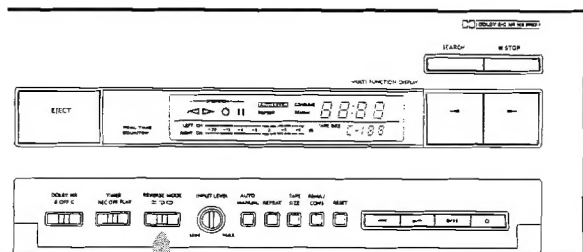
- 1) Follow the instructions in the "Tape Playback" section on page 4 to confirm that the cassette loaded in the deck is the correct one and move the tape to the selection you wish played first.

- 2) With the K-200R and R-200 power switches still on, set the tuner amplifier timer to turn power on at the time of your choice. (Refer to the R-200 instruction manual for details.)
- 3) Set the Timer Switch to the PLAY position.

Notes:

- 1) Set the R-200 volume control to an appropriate level.
- 2) Be sure the C-200 (CD player) timer switch is in the OFF position.

Auto-Reverse Operation



Reverse Mode

This deck's auto-reverse function automatically reverses the direction of tape travel in the playback or recording modes when the end of the magnetic tape is reached. Tape travel is reversed as soon as a photo sensor detects the presence of the clear leader at the end of the tape. In other words, as soon as the sensor's light ray passes through the tape, the direction of tape travel reverses. Reversal takes place extremely quickly so the gap between sides during playback is barely noticeable. If the cassette tape does not have a clear leader section, tape travel is reversed the instant the end of the tape (including the leader) is reached. Auto-reverse may be activated prematurely with defective cassette tapes with pin holes or other damage which allows light to pass through the tape. To prevent this from happening, play and record such tapes using the "one side" tape transport mode in which auto-reverse is not activated.

Notes:

- 1) Because of slight physical differences between cassette shell halves, cassettes recorded in the forward direction should be played back in the forward direction to obtain the best results.
- 2) When recording, the direction of tape travel only switches from forward to reverse. To keep track of which side is being recorded so that you do not mistakenly use an already recorded side, it is a good idea to always begin recordings with side A.

Reverse mode selector

- Recheck the tape travel direction setting (shown by the Direction indicator) before beginning playback or recording.
- The following explanation assumes that cassette side A is facing outward.
- Due to the location of the photo sensor, the transparent leader must go by the heads before being detected for reverse-to-forward switching. As a result, the silent gap is about one second longer than the forward-to-reverse switching gap.

| Reverse Mode | | Direction of Tape Travel | Playback | Recording |
|--------------|--|--------------------------|---|--|
| One side | | Forward only | Press the ► play button. Only side A (front) is played (once). | Press the ●/II button followed by the ► play button. Only side A (front) is recorded. |
| | | Reverse Only | Press the ◄ play button. Only side B (rear) is played (once). | Press the ●/II button followed by the ◄ play button. Only side B (rear) is recorded. |
| Both sides | | | Press the ► play button to begin playback in the forward direction. Side A and then B are played after which tape travel automatically stops. | Press the ●/II button followed by the ► play button. Side A and then B are recorded after which tape travel automatically stops. |
| | | | Press the ◄ play button to begin playback in the reverse direction. Side B is played after which tape travel automatically stops. | If recording is started in the reverse direction, only side B is recorded after which tape travel stops automatically. |
| Repeat | | | Press the ► play button. Sides A and B are played eight times or until the appropriate ■ STOP button is pressed. | When the repeat mode is used to record the effect is the same if both sides (◻) had been selected. |

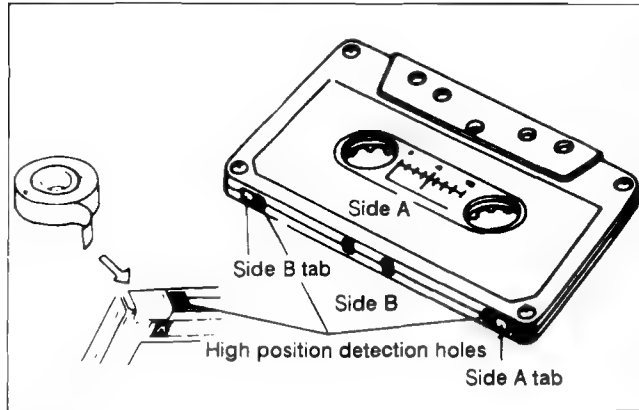
Notes:

1. In order to prevent detection of the leader tape immediately after playback or recording begins, the photo sensor does not operate for the first 20 seconds of playback or recording operation. However, if the end of the tape is reached during the initial 20-second period, the direction of tape travel will still be reversed provided the Reverse Mode selector is set to "both sides" or "repeat."
2. Auto-reverse may not function properly in the following cases:
 - If the tape is extremely thin (C-120 cassettes, for example).
 - If there are markings (letters, designs, etc.) on the leader.
 - If a strong light is directed at or near the recording/playback head.
 - If the cassette has no leader.
 - If the cassette has a leader which is not completely transparent.
3. Note that even if the leader is not detected, the direction of tape travel will still be reversed (provided the deck is set to one of the reverse modes) when the end of the tape (including the leader) is reached. If the deck is set to the "one side" mode, tape travel will stop when the end of the tape is reached.

Handling cassette tapes

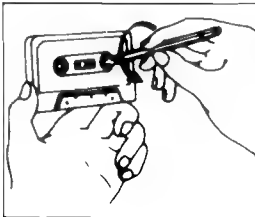
Erase Prevention

Cassette tapes are constructed with erase prevention niches on the back edge that are initially covered by break-off tabs. If you wish to protect a recording from accidental erasure, break off the tab(s) of the appropriate side(s). It will no longer be possible to use the Recording button with such a cassette. If at some later date you wish to re-record the cassette, simply cover the openings with small pieces of cellophane tape.



Tape Slack

Slack in the tape (tape not stretched tightly) can cause tangling around the pinch roller and capstan and jam the mechanism. Remove any tape slack with a pencil or similar device as shown in the diagram.



Owner maintenance

This deck requires no lubrication.

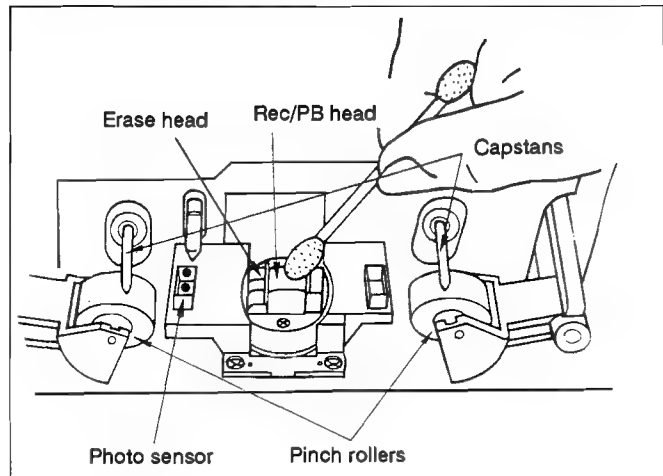
Head, Pinch Roller and Capstan Cleaning

Playback sound quality can be greatly diminished if magnetic particles are allowed to accumulate on the recording/playback head. Be sure to clean the heads periodically, normally 2 – 3 times a month, to maintain your deck's original performance. A dirty head will cause:

- Poor sound quality (loss of high frequency response)
- Decreased volume
- Skipping
- Incomplete erasure of previous recordings

If the pinch rollers and capstan are dirty, the tape may become tangled and damaged by wrapping around the pinch roller and capstan.

To prevent these problems, clean the heads, pinch rollers and capstans with a cotton swab dipped in cleaning fluid.






Demagnetizing

Residual magnetism builds up in the heads after the cassette deck has been used for an extended period of time. This buildup introduces noise and static into tapes and impairs high frequency response. To prevent this, demagnetize the heads and the other metal parts in the area (like the capstan shafts) once every 50 hours of use. Keep the deck power off while using the demagnetizer. Also place tapes far away from the work area.

Troubleshooting guide

The following guide lists problems which do not require professional servicing. If, however, the problem cannot be remedied using this guide, contact your Onkyo dealer for assistance.

| Problem | Cause | Remedy |
|--|--|--|
| No power. | <ul style="list-style-type: none"> ● Power cord plug is loose. | <ul style="list-style-type: none"> ● Insert plug properly into outlet. |
| Playback but no sound. | <ul style="list-style-type: none"> ● Hook-up incorrect. ● Stereo amplifier input selector switch is set to wrong position. | <ul style="list-style-type: none"> ● Check and hook up correctly according to page 2. ● Change switch position. |
| Tape does not move. | <ul style="list-style-type: none"> ● Slack tape wound around pinch roller. | <ul style="list-style-type: none"> ● Take up slack with a pencil (see page 10). |
| Recording button does not engage. | <ul style="list-style-type: none"> ● No tape in cassette holder. ● Erasure prevention tab(s) removed. | <ul style="list-style-type: none"> ● Load cassette tape. ● Change cassette or cover tab hole with cellophane tape. |
| Hoarse sound, balance unstable. | <ul style="list-style-type: none"> ● Playback head dirty. ● Tape is stretched. | <ul style="list-style-type: none"> ● Clean head (see page 10). ● Replace cassette. |
| Excessive noise and tape hiss. | <ul style="list-style-type: none"> ● Head has become magnetized. ● Tape with high noise level. | <ul style="list-style-type: none"> ● Demagnetize (see page 10). ● Replace cassette. |
| Distorted sound. | <ul style="list-style-type: none"> ● Distortion in tape. | <ul style="list-style-type: none"> ● Tape is probably bad but confirm by listening to another. |
| Recordings are distorted. | <ul style="list-style-type: none"> ● Recording was done at too high a level. | <ul style="list-style-type: none"> ● Readjust INPUT LEVEL control knob according to the directions on page 5. |
| Tape squeal/skipping. | <ul style="list-style-type: none"> ● Dirty head, pinch roller or capstan shaft. ● Cassette shell is binding tape or tape is stretched. | <ul style="list-style-type: none"> ● Clean (see page 10). ● Change cassette or try correcting with fast forward and rewind. |
| Excessive hum during playback. | <ul style="list-style-type: none"> ● Connecting cables not inserted firmly. ● External flux leakage from nearby amplifier. | <ul style="list-style-type: none"> ● Insert plugs firmly. ● Move deck away from flux source. |
| High frequencies too strong. | <ul style="list-style-type: none"> ● Dolby NR encoded tape played back with NR off. | <ul style="list-style-type: none"> ● Set the DOLBY NR switch to the proper position for the tape being played back. |
| No high frequency sounds. | <ul style="list-style-type: none"> ● Non-Dolby NR encoded tape played back with Dolby B or C NR on. ● Rec/PB head has become dirty. | <ul style="list-style-type: none"> ● Set the DOLBY NR switch to the proper position for the tape being played back. ● Clean (see page 10). |
| Search function does not operate properly. | <ul style="list-style-type: none"> ● The silent sections between selections are too short or noisy. | <ul style="list-style-type: none"> ● Use a cassette with sufficiently silent sections of sufficient length between selections. |
| Quick reverse does not operate. | <ul style="list-style-type: none"> ● The Reverse Mode Selector switch is set incorrectly. ● The cassette has no leader or the leader is not transparent. ● The photo sensor is dirty. | <ul style="list-style-type: none"> ● Set to  or . ● Use cassette with suitable leader. ● Clean (see page 10). |
| Direction of tape travel reverses before the end is reached. | <ul style="list-style-type: none"> ● Tape is creased, wrinkled or scratched. | <ul style="list-style-type: none"> ● Change cassette. ● Set Reverse Mode Selector switch to . |
| Deck does not operate properly. | <ul style="list-style-type: none"> ● Tape transport control microcomputer has been exposed to interference from power supply or static electricity. | <ul style="list-style-type: none"> ● Switch power off for about ten seconds. |

Specifications

| | |
|-----------------------|--|
| Track Format: | 4-tracks, 2-channels |
| Erasing System: | AC erase |
| Tape Speed: | 4.8 cm/sec. (1-7/8 i.p.s.) |
| Wow and Flutter: | 0.06% (WRMS) |
| Frequency Response: | 20—16,000Hz (Normal) (30—15,000Hz \pm 3dB) 20—16,000Hz (High) (30—15,000Hz \pm 3dB) 20—17,000Hz (Metal) (30—16,000Hz \pm 3dB) |
| S/N Ratio: | 58dB (metal tape, Dolby NR off) A noise reduction of 10dB above 5kHz and 5dB at 1kHz is possible with Dolby B NR. A noise reduction of 20dB at 5kHz is possible with Dolby C NR. |
| Input Jacks: | Line IN: 2 Input sensitivity: 80mV Input impedance: 50kohms |
| Outputs: | Line OUT: 2 Standard output level: 500mV (0dB) Optimum load impedance: over 50 kohms |
| Motors: | DC servo motor: 1 DC motor: 1 |
| Heads: | REC/PB: Special Hard Permalloy x 1; Erase head: Ferrite x 1 |
| Power Supply Rating: | European models: AC 220V, 50Hz U.K. and Australian models: AC 240V, 50Hz Worldwide models: AC 120V and 220V switchable, 50/60Hz |
| Power Consumption: | 25 watts |
| Dimensions: | 435(W) x 117(H) x 328(D)mm (17-1/8" x 4-11/16" x 12-15/16") |
| Weight: | 5.7 kg. (12.6 lbs.) |
| Supplied Accessories: | Connecting cable x 2 RI remote control cable x 1 |

Specifications and external appearance are subject to change
without notice because of product improvements.

ONKYO CORPORATION

International Division: Onarimon Yusen Bldg., 23-5, Nishi-Shimbashi 3-chome, Minato-ku,
TOKYO 105, JAPAN Tel: 03-432-6987 Fax: 03-436-6979 TLX: 242-3551 ONKYO J

ONKYO U.S.A. CORPORATION

200 Williams Drive, Ramsey, N.J. 07446, U.S.A. Tel: 201-825-7950 Fax: 201-825-8150

ONKYO EUROPE GMBH

Hellersbergstrasse 4, 4040 Neuss, WEST GERMANY
Tel: 02101 12 00 75 Fax: 02101 10 33 06 TLX: 85 17 916